

Serial No. 09/159,817

2

PD-980189

**REMARKS**

Applicants wish to thank the Examiner for considering the present application. In the Office Action dated August 6, 2004, claims 1-10 are pending in the application. Applicants respectfully request the Examiner for reconsideration of the rejections.

Claims 1-2 and 5-7 stand rejected under 35 U.S.C. §102(b) as being anticipated by *Araki* (5,543,813).

As the Board pointed out in its previous Opinion in this matter, "Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations." *RCA Corp v Applied Digital Data Systems, Inc.*, 221 USPQ 35, 38 (Fed.Cir.).

The present invention solves problems not identified or solved in the prior art by providing a satellite system that has at least a first satellite and a second satellite wherein the first satellite and the second satellite generate a respective first set of spot beams that partially covers a land mass and a second set of spot beams that together with the first set of spot beams provides ubiquitous coverage over the land mass. A variation of the ubiquitous coverage theme is presented in claims 7 and 8 which are directed to a system in which the first plurality of spot beams have beam segment portions that correspond to areas or portions of the beam which are shown in Figure 13. The beam segment portions may be individually controlled so that based upon a predetermined condition these beam portions may be individually adjustable. As is

Serial No. 09/159,817

3

PD-980189

known in the art, spot beams typically are controlled as one continuous beam and therefore portions of the beam corresponding to an area upon the earth are not individually adjustable.

Admittedly, the *Araki* reference teaches two satellites, each of which generate beams. The Examiner points to Figs. 3-4 and 7 as well as Col. 4, lines 28-27, and Col. 5, lines 29-49. The *Araki* reference is specifically directed for determining and registering the location of a mobile terminal for communication with non-geosynchronous satellites. Figs. 3, 4 and 7 each illustrate that a satellite may have a beam that overlaps another beam. The *Araki* reference works by receiving identification codes associated with each spot beam and transmitting the identification codes with the times received to the satellite and to a land station. Then, a desired beam for transmitting to the specific mobile user is identified and used. References to land masses in the *Araki* reference are specifically set forth in Figs. 2 and 6. In Fig. 2, beams 30-7 and 30-7' are two consecutive time periods of the same beam. That is, beam 30-7 and 30-7' are the same beam at different times and therefore do not actually appear at the same time as illustrated in Fig. 2. Even if beams 30-7 and 30-7' are illustrated, ubiquitous coverage over the land mass is not illustrated. In Fig. 6, two different beams 31-4 and 30-7 are generated from different satellites. The location 10 is merely an area that is estimated as the location information of the mobile terminal 1. Although one of the satellite beams may be arguably described as partially covering, the second satellite spot beam does not provide ubiquitous coverage over the land

Serial No. 09/159,817

4

PD-980189

mass. Also, from looking at Figs. 3, 4 and 7, the area covered by the satellites is illustrated as the larger circle in which the individual beams are illustrated. No land mass is shown in Fig. 3. However, earth stations are shown. The beams generated by the satellite do not extend to the earth station. Applicants respectfully submit that this is more evidence that ubiquitous coverage is not provided by the combination of the beams from the first satellite and the second satellite.

Claims 3-4 stand rejected as being unpatentable over *Araki* in view of *Hargis* (6,009,306). Applicants respectfully traverse.

Claims 3 and 4 are further limitations of claim 1. The *Araki* reference has several deficiencies. Although the *Hargis* reference teaches V and K bands in Col. 5, these refer to crosslinks and not for the spot beam links. K beam uplinks are described in Col. 3. However, no K beam uplinks or downlinks are described in the *Hargis* reference. Applicants therefore respectfully request the Examiner to reconsider the rejections of claims 3 and 4.

Claim 8 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Araki* in view of *Diekelman* (5,612,701). As mentioned above, the *Araki* reference has several deficiencies mentioned above. Claim 8 is a further limitation of claim 7 which ultimately depends from claim 1. Claim 8 specifically recites that the beam segment portions are independently adjustable in response to a condition. The Examiner points to the *Diekelman* reference, Col. 8, lines 45-62, and Fig. 13 for adjusting the beam. However, applicants respectfully submit that the *Diekelman* reference refers to

Serial No. 09/159,817

5

PD-980189

adjusting the position of the beam rather than beam segment portions within a beam. Because of the deficiencies of both the *Araki* reference and the *Diekelman* reference, applicants respectfully request the Examiner for reconsideration of claim 8.

Claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Araki* in view of *Diekelman* as applied to claim 8 above, in further view of *Hargis*.

Claims 9 and 10 are dependent upon claim 8, which in turn is dependent upon claim 7. Claim 9 recites that the beam segment portions are independently adjustable in response to rain. Claim 10 recites that the condition for which the beam segment portions are independently adjustable is heavy traffic. The *Hargis* reference teaches that losses due to ionosphere scintillation and rainfall are relatively insignificant for certain bands. No adjustment of a beam or beam segment is mentioned. Also, traffic is mentioned on line 4 of Col. 3, but this is described so as to accommodate growing communications. No teaching or suggestion is provided for a beam segment of a beam that is independently adjustable due to a condition. As mentioned above with respect to claim 8, no teaching or suggestion is provided in *Diekelman* for independently adjustable beam segments. Likewise, the *Araki* reference also does not recite independently adjustable beam portions. Applicants therefore respectfully request the Examiner for a reconsideration of claims 9 and 10.

In light of the above amendments and remarks, applicants submit that all objections and rejections are now overcome. The application is now in condition for

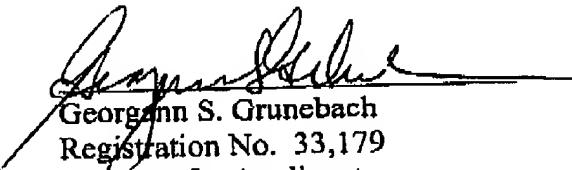
Serial No. 09/159,817

6

PD-980189

allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments, which would place the application in better condition for allowance, he is respectfully requested to call the undersigned attorney.

Respectfully submitted,

  
Georgann S. Grunebach  
Registration No. 33,179  
Attorney for Applicant

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The DIRECTV Group, Inc.  
RE / R11 / A109  
P.O. Box 956  
2250 East Imperial Highway  
El Segundo, CA 90245-0956

Phone: (310) 964-4615